

REMARKS

Favorable reconsideration of this application, in light of the following discussion and in view of the present amendment, is respectfully requested.

Claims 1 and 3-16 are pending in the present application. Claims 1, 3, 4 and 6 are amended, claim 2 is cancelled and new claims 7-16 are added by the present amendment.

I. REJECTION UNDER 35 U.S.C. § 102

Claims 1, 4 and 6 were rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 6,195,098 B1 to Brittain et al. (herein "Brittain"). This rejection is respectfully traversed.

In a non-limiting example, in the present application, a CAD system allows a user to select and manipulate a solid object by selecting a feature from a two-dimensional representation of the three-dimensional object. The user can select a particular three-dimensional geometric feature of the object by specifying one of the corresponding graphic elements displayed on a computer screen in the form of an orthographic projection view, rather than directly specifying that feature of the objects three-dimensional view (see the specification at page 8, line 12 to page 9, line 2).

As an advantage, the CAD user can pick a particular feature of a three-dimensional object for further manipulation, by specifying a part of the two-dimensional views of that object. This is useful at least when the three-dimensional model has some features that are difficult to identify or specify on its three-dimensional view (see the specification at page 9, lines 3-9).

Amended independent claim 1 recites "identifying one of the three-dimensional geometric features that corresponds to the graphic elements selected by the graphic element selection means, and setting the identified geometric feature to a selected state for further manipulation." Amended independent claim 6 includes similar features.

In contrast, Brittain at col. 5, lines 14-36 only discusses a user interface which designates objects for manipulation. The cited portion of Brittain only discusses a user interface in generic terms, using a mouse or keyboard for selecting an item, but does not discuss or suggest "selecting a graphic element contained in the orthographic projection views" and "identifying one of the three-dimensional geometric features that corresponds to the graphic elements selected by the graphic element selected by the graphic element selection means," as in amended independent claim 1 (and similarly recited in amended independent claim 6).

Moreover, amended independent claim 1 recites “generating a set of orthographic projection views representing a three-dimensional model defined as a collection of three-dimensional geometric features,” support for which is found in the originally filed application at least in Figure 10 and at page 12, lines 21-26. Amended independent claim 6 includes similar features of orthographic projection views.

In contrast, Brittain at col. 4, lines 55-67 only discusses a “two-dimensional screen representation of three-dimensional objects.” Brittain does not discuss or suggest “generating a set of orthographic projection views representing a three-dimensional model,” as in amended independent claims 1 and 6. Rather, the rendering operation of Brittain, which discusses metric, oblique or perspective projection views, does not discuss or suggest orthographic projection views, as in amended independent claims 1 and 6.

Accordingly, it is respectfully submitted that independent claims 1 and 6 and each of the claims depending therefrom patentably distinguish over Brittain.

II. REJECTIONS UNDER 35 U.S.C. § 103

Claims 2 and 3 were rejected under 35 U.S.C. § 103(a) as unpatentable over Brittain and U.S. Patent No. 6,016,147 to Gantt. This rejection is respectfully traversed.

Claims 2 and 3 depend on independent claim 1, which as discussed is believed to patentably distinguish over Brittain. Further, Gantt only discusses detecting the position of an input device and moving a 3-D graphic object relative to a graphic pointing symbol in a 3-D representation based on the position of the input device, but does not discuss or suggest at least “selecting a graphic element contained in the orthographic projection views” and “setting the identified geometric feature to a selected state” as in independent claim 1.

Accordingly, it is respectfully submitted claims 2 and 3 patentably distinguish over Brittain and Gantt.

In addition, claim 5 was rejected under 35 U.S.C. §103(a) as unpatentable over Brittain.

As acknowledged in item 13 at page 6 of the outstanding Office Action, Brittain “does not explicitly teach having an identified geometric feature appear with emphasis.” Brittain at col. 6, lines 21-45, only discusses rendering a scene with a selected object removed, but does not discuss or suggest emphasizing the selected object. Brittain does not discuss or suggest emphasizing the selected object in any way.

Moreover, it is respectfully submitted Brittain teaches away from making "the identified geometric feature appear with emphasis," as recited in claim 5, because Brittain only discusses removing a selected object from a scene. Removal of an object from a scene necessarily prevents the removed object from appearing with emphasis.

Further, claim 5 depends on claim 1, which as discussed, is believed to patentably distinguish over Brittain. Accordingly, it is respectfully submitted claim 5 patentably distinguishes over Brittain for at least these reasons.

III. NEW CLAIMS

New claims 7-16 are set forth in the invention in a varying scope. Support for new claim 7 is found in the originally filed specification at least at page 12, line 9 to page 13, line 2; support for new claim 8 is found in the originally filed specification at least at page 13, lines 3-6; support for new claim 9 is found in the originally filed specification at least at page 13, lines 10-15; support for new claim 10 is found in the originally filed specification at least at page 14, lines 2-8; support for new claim 11 is found in the originally filed specification at least at page 15, lines 22-25; support for new claim 12 is found in the originally filed specification at least at page 11, line 15 to page 12, line 2; support for new claims 13 and 14 is found in originally filed specification at least at page 15, line 5 to page 17, line 13; and support for new claim 15 is found in the originally filed application at least in Figures 10 and 11 and page 20, line 21 to page 21, line 8. Further, new claim 16 is similar to amended independent claim 1, but is written not to be interpreted under 35 U.S.C. §112, sixth paragraph.

New claims 7-12 depend on amended independent claim 1, and are believed to be allowable at least for similar reasons as amended independent claim 1. Also, new claim 16, which is similar to amended independent claim 1, is also believed to be allowable for similar reasons as amended independent claim 1. Further, new claim 13 (and new claim 14 which depends on new claim 13) recites "entering the orthographic projection view data into an orthographic projection view data base." It is respectfully submitted Brittain and Gantt do not discuss or suggest such features.

Accordingly, it is respectfully submitted new claims 7-16 also patentably distinguish over Brittain and Gantt.

IV. AMENDMENT TO THE DRAWINGS

Figures 1 and 4 are amended only to correct minor informalities. It is believed no new matter is added.


V. CONCLUSION

Consequently, in light of the above discussion and in view of the present amendment, this application is believed to be allowable and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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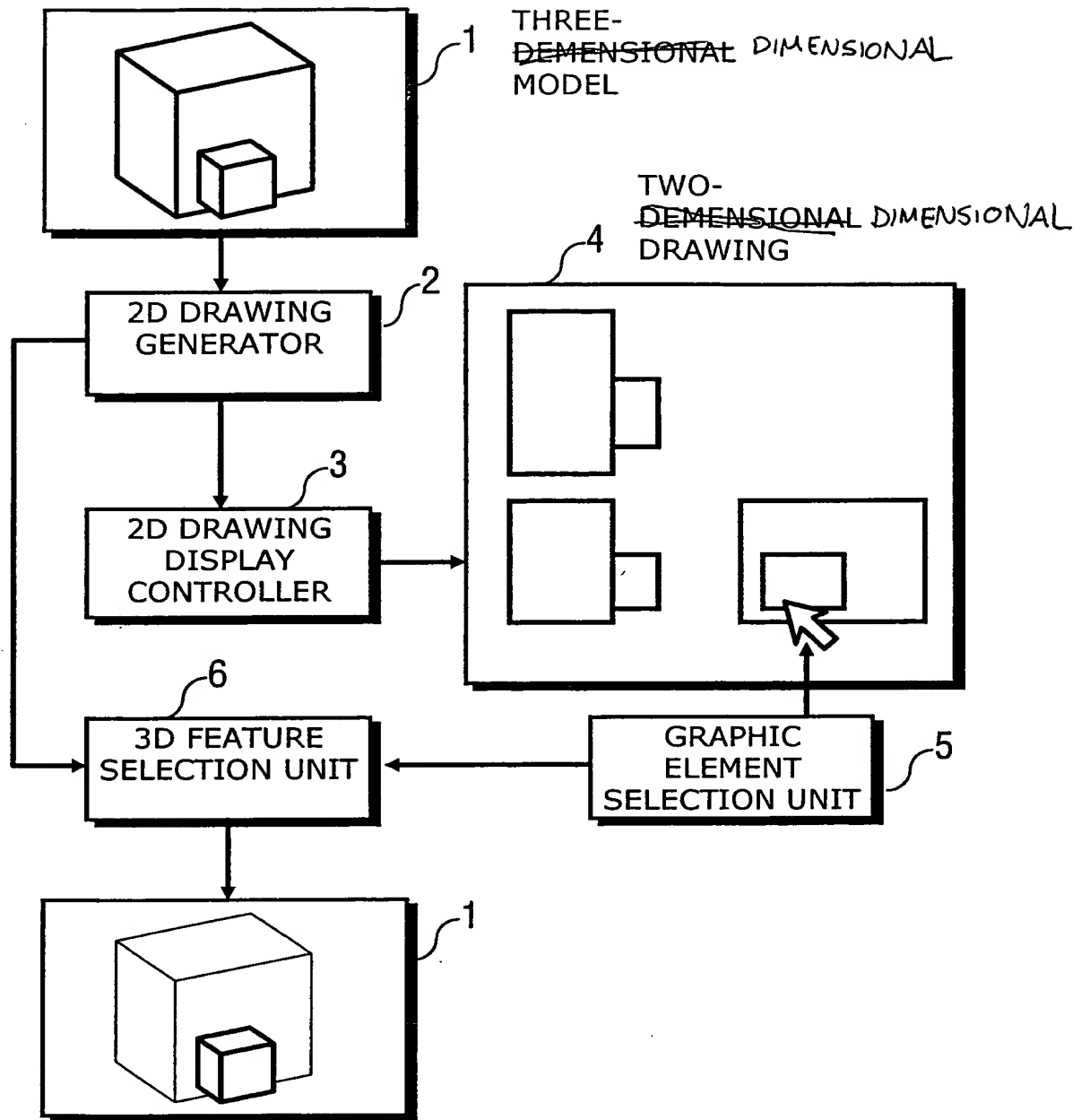


FIG. 1

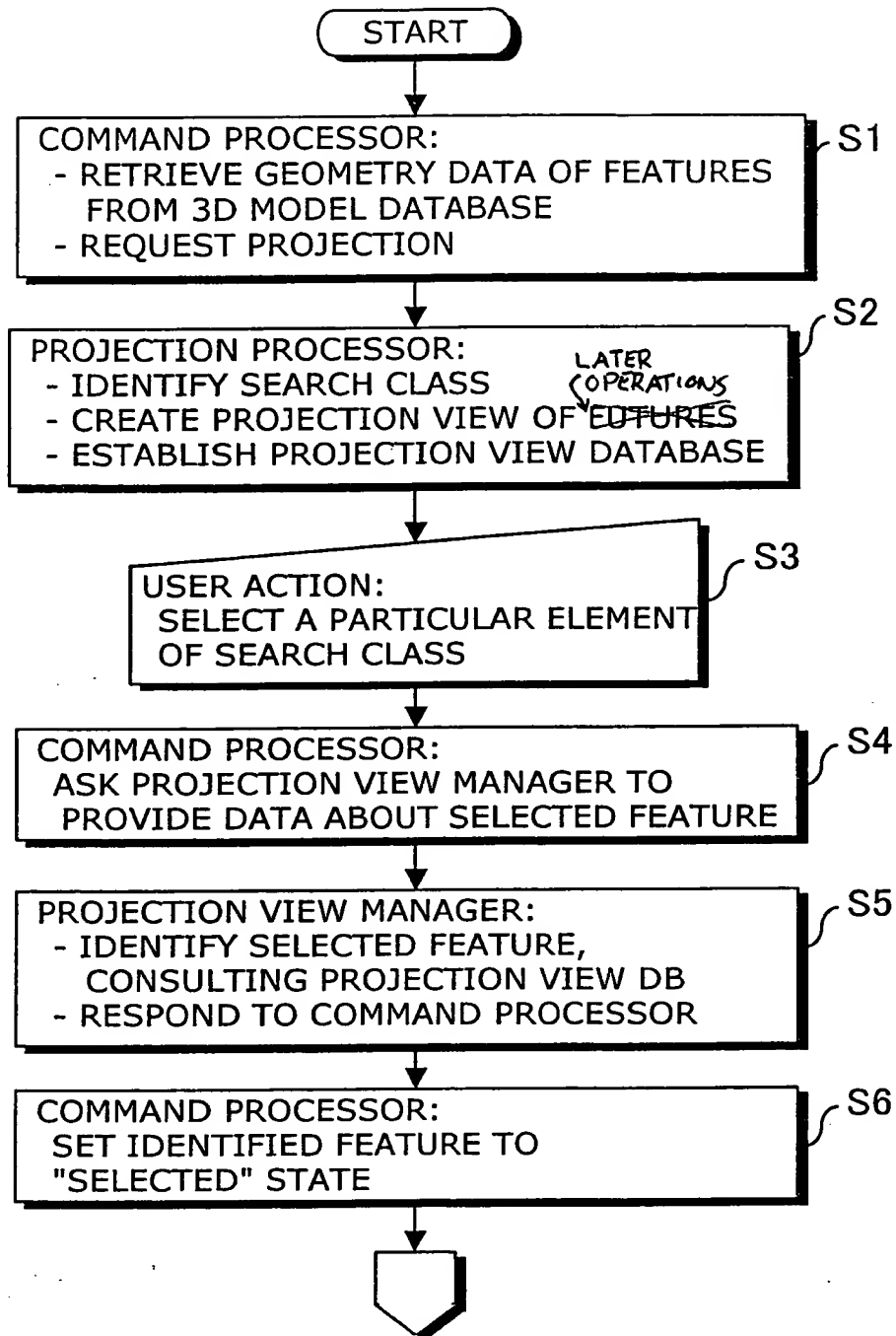


FIG. 4